

Niccolò Guicciardini Corsi Salviati

ORCID-ID: <https://orcid.org/0000-0002-1550-3191>

Curriculum vitae

Born: 1957

CURRENT POSITION

2019-present *Full Professor of History of Science*, Università degli Studi di Milano

PREVIOUS ACADEMIC APPOINTMENTS

2007-2018 *Associate Professor of History of Science*, Università degli Studi di Bergamo¹

2001-2006 *Associate Professor of History of Science*, Università degli Studi di Siena

1992-2001 *Lecturer* (Ricercatore), Università degli Studi di Bologna

VISITING AND RESEARCH APPOINTMENTS

2018 *Visiting Fellow*, Peterhouse, Cambridge (UK) (Oct, 1 - Dec, 15)

2018 *Bacon Visiting Professor of History*, California Institute of Technology (Jan, 2 - May, 1)

2014 *Invité étranger*, Observatoire de Paris (January, 1-31 and June, 1-30)

2013 *Gastwissenschaftler*, Bernoulli-Euler-Zentrum (Basel) (Jan-Jun)

2011 *Professeur invité*, Université Paris 7 Denis Diderot (March, 1-31)

2006 *Mellon Visiting Professor*, California Institute of Technology (Sept, 5 - Dec, 20)

2004-5 *Visiting Fellow*, Clare Hall (Cambridge, UK) (1 semester)

2003-2017 *Visiting Professor* (professore a contratto), Università Vita-Salute San Raffaele (Milano)

1995 *Tutor*, Mathematics Department, University of Utrecht (July, 5-25)

1985-7 *Research Assistant*, Middlesex Polytechnic (UK)

¹Since 2013 holding licences (abilitazioni) for full professor in history of science (M-STO-05) and in history of mathematics (MAT-04)

EDUCATION

- 1992 LAUREA=MSc in Physics, Università degli Studi di Milano²
1987 PhD in History of Mathematics, Middlesex Polytechnic (UK)³.
1982 LAUREA=MA in Philosophy, Università degli Studi di Milano⁴

AWARDS & DISTINCTIONS

- 2021 Non-resident Corresponding Fellow of the *Accademia delle Scienze dell'Istituto di Bologna* (Classe di Scienze Morali)
- 2018 *Francis Bacon Award in the History and Philosophy of Science and Technology*, California Institute of Technology & Francis Bacon Foundation (\$ 20,000)
- 2013 *Selma V. Forkosch Prize* for the best article published in the *Journal of the History of Ideas* in 2013 (\$ 500)
- 2012 *Selezione Giuria Scientifica del Premio Letterario Galileo per la Divulgazione Scientifica*, Comune di Padova (€5,000)
- 2011 *Fernando Gil International Prize for the Philosophy of Science*, Portuguese Foundation for Science and Technology & Calouste Gulbenkian Foundation (€125,000)
- 2011-12 *Sarton Medal*, University of Ghent, Belgium
- 2006 *Section Lecturer*, International Congress of Mathematicians (Madrid)
- 2005-present *Life Member*, Clare Hall (Cambridge)
- 2005-present Corresponding (2005-2012) and (on December 7, 2012) elected effective member, *Académie Internationale d'Histoire des Sciences*

EDITORSHIPS

- 2010-2015 co-Editor-in-Chief *Historia Mathematica* [with June Barrow-Green (2010, 2011, 2012) and Tom Archibald (2013, 2014, 2015)]
- 1997-present Editorial Board *Historia Mathematica* (1997-), *Early Science & Medicine* (2004-), *Nuncius* (2005-2016), *Archive for History of Exact Sciences* (2008-2020), *Hopos* (2010-2017), *Archives Internationales d'Histoire des Sciences* (2018-), Member of the *Wissenschaftlicher Beirat* of the Bernoulli-Edition (Basel) (2007-2012)

REFEREEING OF BOOKS, ARTICLES, GRANT PROPOSALS, APPOINTMENTS (SELECTION)

- 2016 Member of the Group of Experts in Evaluation (GEV) for the Italian national research assessment (VQR) 2011-2014 (Area 11a)⁵

²A 4-year course completed by a dissertation on *Weak neutral currents and the mass of the top quark*.

³Awarded by the Council for National Academic Awards. Supervisor: Ivor Grattan-Guinness. External examiner: Eric Aiton. Title: *The development of the Newtonian calculus in 18C Britain*

⁴A 4-year course completed by a dissertation on *The Analytical Society of Cambridge*.

⁵Organized by the Italian Agency for the Evaluation of Universities and Research Institutes (ANVUR).

ongoing

BOOKS: Cambridge University Press, Princeton University Press, Oxford University Press, Chicago University Press, Harvard University Press, Routledge, Springer, Elsevier, Edinburgh University Press, Penn Press, Brill &c; **PAPERS:** *American Journal of Physics*, *American Mathematical Monthly*, *Annals of Science*, *Centaurus*, *Historia Scientiarum*, *Isis*, *Revue d'Histoire des Mathématiques*, *Studies in History and Philosophy of Science*, *Synthèse*, *Philosophia Scientiae*, *Intellectual History Review*, *Science in Context*, *Filozofia Nauki* (Warsaw), *NTM: Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin*, &c. **GRANTS AND PRIZES:** Mathematisches Forschungsinstitut Oberwolfach, Fonds Wetenschappelijk Onderzoek (FWO), Dutch Research Council (NWO), National Science Foundation (NSF), ERC (European Research Council) Grants, Schweizerische Nationalfonds zur Förderung der wissenschaftlichen Forschung (SNF), Israel Science Foundation (ISF), Memory of the World Program (Unesco), Gerda Henkel Stiftung, Smithsonian Institution, Prix Jeunes Chercheurs Société de philosophie des sciences, Higher School of Economics (Russia), Yad Hanadiv (Israel), Dan David Prize, Neugebauer Prize, Kenneth O. May Prize and Medal, Montucla Prize, Fernando Gil International Prize, &c. **APPOINTMENTS AND FELLOWSHIPS:** University of Minnesota, University of Virginia, Gonville and Caius College (Cambridge), Peterhouse (Cambridge), Fitzwilliam College (Cambridge), Trinity Hall (Cambridge), Collegium Budapest, University of New Mexico, Huntington Library, University of Oxford, Universiteit Gent, Vrije Universiteit Brussel, University of California, Open University, University of British Columbia, Western University (Ontario), Universität Bern, Forschungsinstituts Deutsches Museum, Princeton University, Universidad de los Andes (Colombia), Technion – Israel Institute of Technology (Haifa), Radboud University (Nijmegen), University of King's College and Dalhousie University (Halifax, Canada), St. John's College in Santa Fe, New Mexico., Università Ca' Foscari, Venezia. &c.⁶

MEMBERSHIPS SCIENTIFIC SOCIETIES AND COMMITTEES

2021-2022	Core Member of the IMU Panel on History of Mathematics for the Program Committee for the <i>International Congress of Mathematicians 2022</i>
2020-2021	Member of the sub-committee of the ICHM to choose the recipient of the Kenneth O. May Medal for the history of mathematics
2018-present	Member of the Jury of the Fernando Gil International Prize in Philosophy of Science (Portuguese Foundation for Science and Technology & Calouste Gulbenkian Foundation)
2004-2021	Member of the Executive Committee of the <i>International Commission on the History of Mathematics</i> (of the Division of History of Science of the IUHPS). Vice-Chair (2017-2021)
2017	Member of the sub-committee of the ICHM to choose the recipient of the Montucla Prize for the history of mathematics
2013-2016	Member of the Otto Neugebauer Prize Committee 2016 of the European Mathematical Society

⁶After the appointment as Full Professore in Milan I was involved, as Chair and member of the committee, in a number of evaluations for positions offered by Italian universities, including my own, ranging from post-doc to full professor.

2013	Member of the sub-committee of the ICHM to choose the recipient of the Montucla Prize for the history of mathematics
2012-2013	Core Member of the IMU Panel on History of Mathematics for the Program Committee for the <i>International Congress of Mathematicians</i> , Seoul 2014.
2011-2013	Nominations and elections committee, <i>International Society for the History of Philosophy of Science</i> HOPOS
2009	Member of the sub-committee of the ICHM to choose the recipient of the Kenneth O. May Medal for the history of mathematics

CONFERENCE ORGANIZATION (SELECTION)

2018	7 th Bacon Conference, <i>Anachronism(s) in the History of Mathematics</i> , organized by the Division of the Humanities and Social Sciences at the California Institute of Technology with the support of the Francis Bacon Foundation, Pasadena, April 13-14, 2018
2014	Scientific committee <i>Third International Conference on the History and Education of Modern Mathematics</i> , Zhejiang University of Science and Technology, Hangzhou (China), September 20-25, 2014
2010	Organizer (with Richard T. W. Arthur) of the international workshop “On the Contested Expanding Rôle of Applied Mathematics from the Renaissance to the Enlightenment”, Centro De Giorgi, Scuola Normale Superiore, Pisa, September 13-16, 2010
2009	Organizer “The Relations Between History and Philosophy of Science”, International workshop, Bergamo (Italy), May 20-22, 2009 [Proceeding published in <i>The Monist</i>]
2005	Organizer (with Tinne Hoff Kjeldsen and David E. Rowe) of the meeting “Mathematics in the Physical Sciences, 1650-2000” at the <i>Mathematisches Forschungsinstitut</i> , Oberwolfach (Germany), December 11-17, 2005

ADMINISTRATIVE DUTIES AT THE STATE UNIVERSITY (MILAN)

2019	Member of the Commissione di valutazione classi stipendiali
2019-2022	Member of the Commissione paritetica docenti studenti
2019-2023	Member of the Giunta della Scuola di Dottorato in Filosofia e Scienze dell’Uomo
2023-present	Doctoral Programmes Coordinator

TEACHING

1992-present	Courses taught at the Universities of Bologna, Siena, Bergamo, San Raffaele (Milan), State University (Milan)
	<ol style="list-style-type: none"> 1. Cosmology and astronomy from Copernicus to Galilei 2. History of the exact sciences from Galilei to Newton 3. Conceptions of mathematics and mathematical practice from Galilei to Kant

4. The sciences and philosophy during the Enlightenment
5. A history of electromagnetism
6. An introduction to the philosophy of quantum mechanics
7. A history of the conceptions of time and space from Newton to Einstein
8. An introduction to propositional and predicate logic
9. History of mathematical thought
10. Philosophical issues in the historiography of science
11. Philosophy of science

2006 & 2011 Courses taught as Visiting Professor at *Caltech* and at the *Université Paris 7 Denis Diderot*

1. Geometry, mechanics and natural philosophy in 17th and 18th centuries
2. The mathematization of natural philosophy in 17th- and 18th- Century Europe.
3. Isaac Newton and the scientific revolution

2003-2006 Member of the collegio docenti of the “Dottorato in storia della scienza delle Università toscane”

2009-2013 Member of the collegio docenti of the “Scuola di Dottorato in Filosofia” of the University of Turin

2013-2018 Member of the collegio docenti of the “Consorzio di Dottorato in Filosofia del Nord Ovest”

2019-present Member of the collegio docenti of the Scuola di Dottorato in Filosofia e Scienze dell’Uomo (State University, Milan)

SUPERVISION (SELECTION)

1. external examiner (correlatore), Laura Gobbi, *L'ipotesi del neutrino nel carteggio Pauli (1929-1934)*, master thesis, Dipartimento di Fisica, Università di Bologna, 1994 (prize for the best thesis in history of physics awarded by Accademia dei Lincei).
2. external examiner (correlatore), Paolo Palmieri, *Re-examining Galileo's theory of tides*, master thesis, Dipartimento di Filosofia, Università di Bologna (published in *Archive for History of Exact Sciences* (1998) 53, 223-375).
3. director of J. B. Shank's (University of Minnesota) research in the context of a NSF professional development scholarship at the Dipartimento di Filosofia e Scienze Sociali, Siena (full academic year 2005—6)
4. supervisor, Valentina Fabbri, *La cosmologia di William Herschel (1738-1822): dalla scoperta di Urano alla storia naturale dei cieli*, PhD thesis, Dottorato in storia della scienza delle università toscane, 2006
5. advisor (full academic year 2014-2015) of Yoshimi Takuwa's work for a PhD thesis on Newton's optical experiments at the Tokyo Institute of Technology
6. coorientador of Luiz Felipe Sigwalt de Miranda, *Estilo e prática matemática: Estudo das primeiras soluções do problema da braquistócrona*, PhD thesis, Universidade Federal do Paraná (2018)
7. supervisor, Sebastián Molina Betancur, "No hay reino que no sea newtoniano": *José Celestino Mutis and the appropriation of Newton's experimental physics in New Granada (1762-1804)*, PhD thesis, Dottorato in Filosofia del Nord Ovest (FINO) (awarded December 2018). Winner of the prize (2.000€) for the best FINO dissertation of the XXXI cycle (November 14, 2019). (Doctoral thesis published in 2023 by Palgrave Macmillan in the series Palgrave Studies in the History of Science and Technology).

DOCTORAL THESES: COMMITTEE MEMBER (RAPPORTEUR)

1. Lucio Molinari, *Descartes: sémantique et mécanique de la lumière*, Université Paris I Panthéon-Sorbonne, Università degli Studi di Bologna, 9 December 2009
2. Committee various candidates, Istituto Italiano di Scienze Umane (SUM), Bologna, 20 giugno 2012
3. Alessio Rocci, *La storia della Gravità Quantistica dalla nascita della Relatività Generale al secondo dopoguerra (1915-1945)*, Università degli Studi di Padova, 6 November 2015
4. Viktor Blåsjö, *Transcendental Curves in the Leibnizian Calculus*, Universiteit Utrecht, 22 February 2016
5. Thierry Joffredo, *Approches biographiques de l'Introduction à l'analyse des lignes courbes algébriques de Gabriel Cramer*, Nancy, 1 December 2017

6. Jip van Besouw, *i Out of Newton's shadow: an examination of Willem Jacob's Gravesande's scientific methodology*, Vrije Universiteit Brussel, 22 December 2017
7. Ricardo Batista do Santos, *O Nascimento da Ciência Empírico-Matemática: Um Estudo sobre o programa metodológico dos Principia de Isaac Newton*, Universidade Federal do Paraná (2018), February 2021
8. Yannick Van den Abeel, *Historical and philosophical perspectives on the development of mechanics and gravitational physics from Newton to Lagrange and Laplace*, Vrije Universiteit Brussel, February 2021
9. Ivan Malara, *Galileo Creation and Cosmogony: A Study on the Interplay between Galileo's Science of Motion and the Creation Theme*, Dottorato in Filosofia e Scienze dell'Uomo (State University, Milan), June 2021
10. Olivier Bruneau, rapporteur Habilitation à Diriger des Recherches (Université de Lorraine), March 2022
11. Kevin Baker, *Negotiating the Principia: the failure of Newton's arguments to persuade his readers, 1684–94*, DPhil (Oxford), September 2022
12. Lucia Bucciarelli, *Spreading the word: Practices of discipleship in early modern natural philosophy*, DPhil (Oxford), June 2023
13. Sébastien Maronne, rapporteur Habilitation à Diriger des Recherches (Université de Toulouse III), 2024

PLENARY AND NAMED LECTURES

- 2021.5.18 “Nuove prospettive della storiografia newtoniana: il punto di vista di uno storico della matematica”, Lectio Commandiniana, Università degli Studi di Urbino
- 2018.4.13 “Un Altro Presente: On the Historical Interpretation of Mathematical Texts,” Pasadena [Key-note speech, Francis Bacon Award in the History and Philosophy of Science and Technology, California Institute of Technology & Francis Bacon Foundation]
- 2018.4.5 “Interpreting Newton,” Westfall Lecture, Indiana University, Bloomington
- 2015.10.9 Invited speaker at the Masterclass on Isaac Newton’s Philosophical Projects, Institute for Research in the Humanities, University of Bucharest
- 2015.9.19 “Reading the *Principia* with the help of Newton”, Invited Special Lecture Speaker at the London Mathematical Society/European Mathematical Society Mathematical Meeting (University of Birmingham)
- 2012.4.17 “Incontro con l’autore Premio Letterario Galileo per la Divulgazione Scientifica”, Planetario di Padova [Lecture Premio Galileo]
- 2012.3.20 “‘Specious algebra is fit enough to find out, but entirely unfit to consign to writing and commit to posterity’: Newton’s publication strategies as a mathematical author”, Centro de Filosofia das Ciências, University of Lisbon [Gil Prize Lecture]
- 2012.3.19 “The Philosophy of mathematics and mathematical practice: the case of Isaac Newton’s conceptions of mathematical certainty and method”, Calouste Gulbenkian Foundation, Lisbon [Gil Prize Acceptance Lecture]
- 2012.3.15 “‘Specious algebra is fit enough to find out, but entirely unfit to consign to writing and commit to posterity’: Newton’s publication strategies as a mathematical author”, University of Ghent [Sarton Medal Lecture]
- 2006.8.26 “Method versus calculus in Newton’s criticisms of Descartes and Leibniz”, *International Congress of Mathematicians*, Madrid [Invited Section Lecture]

CONFERENCE PAPERS AND TALKS (YYYY.MM.DD) — LAST 15 YEARS

- 2023.5.15 Paris Cité
- 2023.2.10-11 Bloomington, Indiana
- 2023.1.17-19 Paris, Académie des sciences, Centre Koyré, Paris Cité
- 2022.10.19-21 Nicolaus Copernicus University, Toruń, Poland
- 2022.5.15 Birkbeck College, London
- 2020-2022 During the pandemic quite a number of webminars. Selection: Dehli, Tokyo, Indore, Prague, Dharamshala, Urbino, Oberwolfach, Amsterdam, Trento, Napoli, Bloomington, Warburg Institute, Gouveia (Portugal)
- 2019.12.10 Université de Nantes
- 2019.8.1 Maynooth University (Ireland)
- 2019.6.12 Queen's University, Belfast
- 2019.2.23 Queen's College, Oxford
- 2018.11.12 HPS Cambridge (UK)
- 2018.7.27 Iowa State University
- 2018.7.13 Dipartimento di Matematica, Università di Ferrara
- 2018.5.17 Dipartimento di Matematica, Università degli Studi di Milano
- 2018.4.13 California Institute of Technology (Pasadena)
- 2018.3.26 Claremont College (California)
- 2017.11.26 The Cohn Institute, Tel Aviv
- 2017.11.14 Séminaire Équipe SPHERE, Paris 7 Diderot
- 2017.2.5 Early Modern Intellectual History Seminar, All Souls, Oxford
- 2017.1.5 AMS/MAA Joint Meetings, Atlanta (USA)

- 2016.12.15 Accademia delle Scienze di Torino
- 2016.12.1 Dipartimento di Matematica, Università degli Studi di Milano
- 2016.10.13 Accademia di Belle Arti Tadini, Lovere
- 2016.7.6 Vrije Universiteit, Brussels
- 2016.4.14 The Open University, Milton Keynes
- 2016.4.9 The Queen's College, Oxford
- 2016.3.3 Bergische Universität, Wuppertal
- 2016.2.22 Universiteit Utrecht
- 2015.11.12 Collegio Ghislieri, Pavia
- 2015.11.9 Dipartimento di Fisica, Università di Padova
- 2015.6.24 Dipartimento di ingegneria strutturale e geotecnica, Università di Roma, Sapienza
- 2015.5.29 Dipartimento di Matematica, Università degli Studi di Milano
- 2015.5.27 Observatoire de Paris
- 2015.5.26 Séminaire Équipe SPHERE, Paris 7 Diderot
- 2014.11.25 Observatoire de Paris
- 2014.10.10 Huntington Library (CA)
- 2014.10.6 Observatoire de Paris
- 2014.9.22 Zhejiang University of Science and Technology, Hangzhou (China)
- 2014.9.11 Open University, Milton Keynes (UK)
- 2014.2.20 Scuola di Ingegneria e di Architettura, Università di Bologna
- 2014.1.24 Université Pierre-et-Marie-Curie (Paris VI)
- 2013.12.13 Royal Society, London (UK)
- 2013.11.28 Dipartimento di Fisica e Astronomia, Università degli Studi di Padova

- 2013.10.25 University of King's College, Halifax (Canada), 24–26 October 2013
- 2013.7.22 24th International Congress of History of Science, Technology and Medicine, Manchester
- 2013.4.17 Institut für Philosophie, Universität Bern, Switzerland
- 2012.11.19 Ramjas College, University of Delhi
- 2012.6.15 Museo di Storia della Scienza, Firenze
- 2012.6.14 Institut für Philosophie, Institut Wiener Kreis, Universität Wien
- 2012.5.18 Northwest University, Xi'an (China)
- 2012.4.3 Observatoire de Paris
- 2012.1.5 *AMS-MAA Joint Meetings*, Boston
- 2011.12.15 All Souls College, Oxford
- 2011.11.9 Søminestationen, Denmark
- 2011.11.8 University of Copenhagen
- 2011.10.14 Vitry-le-François
- 2011.3.14 *Laboratoire SPHERE*, Paris 7 Diderot
- 2011.1.7 *AMS-MAA Joint Meetings*, New Orleans, LA
- 2010.12.16 All Souls College, Oxford
- 2010.9.15 *Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale Superiore*, Pisa
- 2010.4.28 *Fondazione Teatro Comunale di Bologna*
- 2010.4.13 Jesus College, Oxford
- 2010.3.24 *Museo della Matematica, Il Giardino di Archimede*, Firenze
- 2010.1.14 *Dipartimento di Matematica dell'Università di Torino*
- 2009.12.3 *Institut für Mathematik, Gutenberg Universität*, Mainz

- 2009.10.22 *Dipartimento di Matematica, Università degli Studi di Milano*
- 2009.4.21 *Department of Mathematics, Copenhagen University*
- 2009.4.20 *Institut for Videnskabsstudier, Aarhus University*
- 2009.4.6 *Dipartimento di Filosofia, Università degli Studi di Torino*
- 2009.3.20 *Scuola Normale Superiore, Pisa*
- 2009.1.30 *Institute for Advanced and Basic Sciences, Zanjan (Iran)*
- 2008.12.17 *All Souls College, Oxford*
- 2008.7.8 *Centro De Giorgi (Scuola Normale Superiore), Pisa*
- 2008.3.27 *Radboud University, Nijmegen.*
- 2008.1.7 *Annual AMS-MAA Meetings, San Diego, California*
- 2007.9.26 *Annual Meeting of the Austrian Physical Society, Krems (Austria)*
- 2007.6.18 *The Van Leer Institute, Jerusalem*
- 2007.5.22 *California Institute of Technology, Pasadena (USA)*
- 2007.3.7 *Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale Superiore, Pisa*
- 2007.3.6 *Museo della Matematica, Il Giardino di Archimede, Firenze*
- 2007.2.23 *1st Annual Colloquium of the Iranian Institute of Philosophy, Teheran, IRAN*
- 2006.12.8 *California Institute of Technology, Pasadena (USA)*
- 2006.12.1 *University of Minnesota, Minneapolis (USA)*
- 2006.6.16 *HOPOS 2006: 6th International History of Philosophy of Science Congress, Paris*
- 2006.2.20 *Mathematisches Forschungsinstitut, Oberwolfach (Germania)*
- 2005.11.26 *Centro di Ricerca Matematica Ennio De Giorgi della Scuola Normale Superiore, Pisa*
- 2004.11.23 *Newton Institute, Cambridge, UK*

Niccolò Guicciardini Corsi Salviati

Publications

MONOGRAPHS

- 2009 *Isaac Newton on Mathematical Certainty and Method*, MIT Press⁷
- 1999 *Reading the Principia: the Debate on Newton's Mathematical Methods for Natural Philosophy from 1687 to 1736*, Cambridge University Press
- 1989 *The Development of Newtonian Calculus in Britain, 1700-1800*, Cambridge University Press

TEXTBOOKS

- 2011 *Newton*, Carocci (second ed. 2021 in the series *Frecce*)⁸
A shortened and updated English version of this brief intellectual biography published as *Isaac Newton and Natural Philosophy* (London, Reaktion Books, 2018). Chinese translation to appear for Dook Media Group, Beijing.
- 2007 *Fisica Quantistica: una Introduzione*, Carocci (with Gianluca Introzzi)
- 1998 *Newton: un Filosofo della Natura e il Sistema del Mondo*, Le Scienze (this is an introduction to Newton's *Principia* accessible to the general reader, published as a special issue of the Italian edition of *Scientific American* → translations in German, Dutch, French, Portuguese, Spanish)

LECTURES

- 2018 “Un Altro Presente: on the historical interpretation of mathematical texts,” *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 33:3, pp. 148-165
[Bacon Prize Key-note speech delivered on April 13, 2018 at the California Institute of Technology, Pasadena]
- 2014 *The philosophy of mathematics and mathematical practice: the case of Isaac Newton's conceptions of mathematical certainty and method*. Lisbon: Fundação Calouste Gulbenkian, Fundação para a Ciência e Tecnologia (ISBN: 978-972-31-1511-69)
[Fernando Gil Prize Lecture delivered on March 19, 2012 at the Gulbenkian Foundation, Lisbon]

⁷Gil Prize presented by Portuguese Foundation for Science and Technology & Calouste Gulbenkian Foundation, €125,000

⁸Selezione Giuria Scientifica Premio Galileo per la Divulgazione Scientifica - anno 2012, presented by Comune di Padova, €5,000

- 2012 “Specious algebra is fit enough to find out, but entirely unfit to consign to writing and commit to posterity’: Newton’s publication strategies as a mathematical author”, *Sartoniana*, 25, pp. 161–78
[Sarton Medal Lecture delivered on March 15, 2012 at Ghent University]
- 2006 “Method versus Calculus in Newton’s criticisms of Descartes and Leibniz”, in *Proceedings of the International Congress of Mathematicians, Madrid, August 22-30 2006*, European Mathematical Society, Zürich, vol. 3, pp. 1719–42
[Invited section lecture delivered on August 26, 2006 in Madrid]

EDITED VOLUMES AND SPECIAL JOURNAL ISSUES

- 2021 *Anachronisms in the History of Mathematics: Essays on the Historical Interpretation of Mathematical Texts*, Proceedings of the Bacon Conference held at Caltech, Pasadena, April 13–14, 2018, Cambridge University Press
- 2020 with Franco Giudice, “The reception of Galileo in England and Scotland during the long Seventeenth Century”, special issue, *Galilæana*, XVII, pp. 1–192
- 2014 *Historia Mathematica: Four Decades of Excellence in the History of Mathematics*, Elsevier [with Tom Archibald]
- 2010 “Philosophical History of Science”, *The Monist* 93:4
- 2005 Co-editor (with Ivor Grattan-Guinness (editor), Roger Cooke, Leo Corry, Pierre Crépel (co-editors)), *Landmark Writings in Western Mathematics, 1640-1940*, Elsevier
- 2005 “Open Forum: Newton vs. Hooke on Gravitation,” *Early Science and Medicine* 10

ARTICLES IN PEER-REVIEWED JOURNALS⁹

- 2022 “Newtonian Absolute Time vs Fluxional Time”, *Almagest: International Journal for the History of Scientific Ideas*, 13, pp. 69–83.
- 2022[†] “On Newton’s Mathematical Writings: Disciplinary Boundaries and Circulation”, *Historia Scientiarum*, 32 (1), pp. 5–16.
- 2022[†] “The variety of readings of Archimedes in the scientific revolution: Leibniz vs. Newton”, *Interdisciplinary Science Reviews*, 47, pp. 376–390.
- 2022 “David Gregory’s manuscript ‘Isaac Neutoni Methodus Fluxionum’ (1694): a study on the early publication of Newton’s discoveries on calculus”, *Notes and Records of the Royal Society*, 76, pp. 541–564.

⁹Classificati in fascia A, con eccezioni segnate con †.

- 2021 with Antonio Giorgilli, “La legge gravitazionale dell’ inverso del quadrato nei *Principia* di Newton, *Rendiconti dell’Istituto Lombardo di Scienze e Lettere. Classe di Scienze Matematiche e Naturali*, 155, pp. 1–27 (online 3 November 2021).
- 2021 “Lessons for the Historian of Newtonian Mathematics”, *Early Science and Medicine*, 26, pp. 124–135.
- 2020[†] “On the invisibility and impact of Robert Hooke’s theory of gravitation”, *Open Philosophy*, 3, pp. 266–282.
- 2018[†] “Un Altro Presente: on the historical interpretation of mathematical texts”, *BSHM Bulletin: Journal of the British Society for the History of Mathematics*, 33(3), pp. 148–165
- 2018[†] “Newton the Mathematician”, *Newsletter of the London Mathematical Society*, 477 – July 2018, pp. 16–21
- 2017 “The publication of Newton’s *Opera Omnia* in Geneva and Lausanne (1739–1761): a chapter in the reception of Newtonianism”, *History of Science*, 55(4), pp. 457–489
- 2016 “Lost in translation? Reading Newton on inverse-cube trajectories”, *Archive for History of Exact Sciences*, 70(2), pp. 205–241
- 2015 “Editing Newton in Geneva and Rome: The Annotated Edition of the *Principia* by Calandrini, Le Seur, and Jacquier”, *Annals of Science*, 72(3), pp. 337–380
- 2015 “In Memoriam: Ivor Grattan-Guinness (June 23, 1941–December 12, 2014)”, *Historia Mathematica* 42(4), pp. 385–406 (with Joseph W. Dauben, Albert C. Lewis, Karen Hunger Parshall, Adrian C. Rice)
- 2014 “Digitizing Isaac Newton”, essay review of *The Newton Project*, directed by Robert Iliffe, William R. Newman, and Stephen Snobelen, *Isis*, 105(2), pp. 403–409
- 2013 Essay Review of William L. Harper, *Isaac Newton’s Scientific Method: Turning Data into Evidence about Gravity & Cosmology* (2011) and Steffen Ducheyne, *The Main Business of Natural Philosophy: Isaac Newton’s Natural-Philosophical Methodology* (2012), in *Perspectives on Science*, 21(4), pp. 463–81
- 2013 “The Role of Musical Analogies in Newton’s Optical and Cosmological Work”, *Journal of the History of Ideas*, 74(1), pp. 45–67 (Selma V. Forkosch Prize for 2013). Reprinted in Massimo Mazzotti (ed.), *The History of Science: Critical Concepts in Historical Studies*, London: Routledge, 2020, vol. IV, pp.
- 2012 “Newton o la Morte di un Eretico”, *Rivista di Storia della Filosofia*, 67(1), pp. 131–40

- 2012[†] “Open issues in the new historiography of European early modern mathematics”, *Ganita Bhārati, Bulletin of the Indian Society for History of Mathematics* 34 (No.1-2), pp. 25-34
- 2012 “John Wallis as Editor of Newton’s Mathematical Work”, *Notes and Records of the Royal Society* 66(1), pp. 3-17
- 2009 “In Memoriam: Derek Thomas Whiteside (1932-2008)”, *Historia Mathematica* 36, pp. 4-9
- 2005 “Reconsidering the Hooke-Newton Debate on Gravitation: Recent Results”, *Early Science and Medicine* 10, pp. 510-18
- 2004 “Dot-Age: Newton’s Mathematical Legacy in the Eighteenth Century”, *Early Science and Medicine* 9(3), pp. 218-56
- 2004 “Isaac Newton and the Publication of his Mathematical Manuscripts”, *Studies in History and Philosophy of Science* 35(3), pp. 455-70
- 2004[†] “Geometry and Mechanics in the Preface to Newton’s *Principia*: a Criticism of Descartes’ *Géométrie*”, *Graduate Faculty Philosophy Journal* 25(2), pp. 119-59
- 2003 “Conceptulism and Contextualism in the Recent Historiography of Newton’s *Principia*”, *Historia Mathematica* 30(4), pp. 407-31
- 2002 “Maurizio Mamiani e gli Studi Newtoniani”, *Physis* 39, pp. 469-81
- 2001[†] “Thomas Reid’s Mathematical Manuscripts: a Preliminary Survey”, *Reid Studies* 5(1), pp. 71-86
- 1999 “Bifocal mathematicians” [essay review of Helena M. Pycior, *Symbols, impossible numbers, and geometric entanglements: British algebra through the commentaries on Newton’s Universal Arithmetick*], *Studies in History and Philosophy of Science* 30, pp. 183-89
- 1998 “Did Newton Use His Calculus in the *Principia*?”, *Centaurus* 40, pp. 303-44
- 1996 “An episode in the History of Dynamics: Jakob Hermann’s Proof (1716) of Proposition 1, Book 1, of Newton’s *Principia*”, *Historia Mathematica* 23(2), pp. 167-81
- 1995 “Johann Bernoulli, John Keill and the Inverse Problem of Central Forces”, *Annals of Science* 52, pp. 537-75
- 1985 “Gravitation and the Stars”, *Journal for the History of Astronomy* 16, pp. 221-3
- 1984 “Una Risposta a Berkeley: Colin Maclaurin e i Fondamenti del Calcolo Flussionale”, *Epistemologia* 7, pp. 207-24

- 1986 “Modalità *de re* e Analisi Infinita in Leibniz; una Nota su Alcune Recenti Interpretazioni”, *Lingua e Stile* 21, pp.105–20 [with Michele Di Francesco]

MAJOR BOOK CHAPTERS (REFEREED)

- 2022 “Mathematical Innovation and Tradition: The Cartesian Common and the Leibnizian New Analyses”, in *The Cambridge History of Philosophy of the Scientific Revolution*, eds. David Marshall Miller & Dana Jalobeanu. Cambridge: Cambridge University Press, pp. 274–292.
- 2021 “Preface” (pp. xvii–xxv), “Chapter 1: Introduction: The historical interpretation of mathematical texts and the problem of anachronism” (pp. 1–41), “Chapter 7: Deceptive familiarity: differential equations in Leibniz and the Leibnizian school (1689–1736)” (pp. 196–222), in Niccolò Guicciardini ed., *Anachronisms in the History of Mathematics: Essays on the Historical Interpretation of Mathematical Texts*, Cambridge: Cambridge University Press.
- 2019 “The reception of Newton’s method of series and fluxions in eighteenth- century Europe,” in *The Reception of Isaac Newton in Europe*, Scott Mandelbrote and Helmut Pulte (eds.), London, Bloomsbury Academic, pp. 281–94.
- 2017 “Jean-Louis Calandrini, éditeur de la version annotée des *Principia* de Newton de Le Seur et Jacquier,” in *François Jacquier: Un savant des Lumières entre le cloître et le monde*, G. Montègre and P. Crepel (eds.), Presses universitaires de Nancy – Editions universitaires de Lorraine, pp. 149–168.
- 2017 “The Newton–Leibniz Calculus Controversy, 1708–1730,” in *The Oxford Handbook of Newton*, Eric Schliesser and Christopher Smeenk (eds.), Oxford University Press (online May 2017)
- 2016 “A Brief Introduction to the Mathematical Work of Isaac Newton”, in *The Cambridge Companion to Newton, 2d Edition*, edited by Robert Iliffe and George E. Smith, Cambridge University Press, pp. 382–420.
- 2015 “Proofs and Contexts: the Debate between Bernoulli and Newton on the Mathematics of Central Force Motion”, in *A Delicate Balance: Global Perspectives on Innovation and Tradition in the History of Mathematics. A Festschrift in Honor of Joseph W. Dauben*, edited by David E. Rowe and Wann-Sheng Horng, Birkhäuser, pp. 67–102.
- 2013 “Une note sur Newton et la tradition Néo-Pythagoricienne”, in *L’homme au risque de l’infini: Mélanges d’histoire et de philosophie des sciences offerts à Michel Blay*, edited by Michela Mal pangotto, Vincent Jullien, Efthymios Nicolaidis, Brepols, pp. 249–255
- 2013 “Mathematics and the New Science”, in *The Oxford Handbook of the History of Physics*,

Jed Buchwald and Robert Fox (eds.), Oxford University Press, pp. 226–264

- 2012 “Newton’s Dispute with Leibniz”, in *The Isaac Newton’s Guide Book*, ed. by Denis R. Alexander, Faraday Institute Publishing, Cambridge, pp. 63–73 [to be distributed together with a DVD of the play *Let Newton Be!* by Craig Baxter]
- 2012 “The Quarrel on the Invention of the Calculus in Jean E. Montucla and Joseph Jérôme de Lalande, *Histoire des Mathématiques* (1758/1799–1802)”, in *The History of the History of Mathematics*, B. Wardhaugh (ed.), Peter Lang, pp. 73–88
- 2009 “Gigantic implements of war: the images of Newton as a mathematician”, in *The Oxford Handbook of the History of Mathematics*, Eleanor Robson and Jacqueline Stedall (eds.), Oxford University Press, pp. 707–35 (Japanese translation by Ken Saito, Nobuo Miura & Katsuya Miyake, Tokyo: Kyoritsu Shyuppan, 2014)
- 2008 “Isaac Newton”, in *Princeton Companion to Mathematics*, Tim Gowers and June Barrow-Green (eds.), Princeton University Press, pp. 742–3
- 2007 “*Mechanica rationalis* and *philosophia naturalis* in the *Autoris Praefatio* to Newton’s *Principia*”, in M. Bucciantini, M. Camerota, S. Roux (eds.), *Mechanics and cosmology in the medieval and early modern period*, Olschki, pp. 169–86
- 2005 “Geometry and Mechanics in the *Autoris Praefatio* to Newton’s *Principia*”, in *Instruction and Amusement: le Ragioni dell’Illuminismo Britannico*, a cura di E. Mazza ed E. Ronchetti, Padova, Il Poligrafo, pp. 115–25
- 2005 “Isaac Newton, *Philosophiae Naturalis Principia Mathematica*”, in *Landmark Writings in Western Mathematics, Case Studies 1640–1940*, I. Grattan-Guinness ed., Elsevier, pp. 59–87
- 2003 “Le Notae in Newtoni *Principia Mathematica Philosophiae Naturalis* di David Gregory”, in *Filosofia, Scienza e Politica nel Settecento Britannico*, a cura di L. Turco, Padova, Il Poligrafo, pp. 355–69
- 2002 “Analysis and Synthesis in Newton’s Mathematical Work”, in I.B Cohen and G. Smith (eds.) *Companion to Newton*, Cambridge University Press, pp. 308–28
- 2000 “Thomas Reid e l’Eredità Matematica Newtoniana”, in *Filosofia e Cultura nel Settecento Britannico: II. Hume e Hutcheson. Reid e la Scuola di Senso Comune*, A. Santucci ed., Il Mulino, pp. 301–13
- 1999 “Newtons Methode und Leibniz’ Kalkül”, in *Geschichte der Analysis*, H. N. Jahnke ed., Spektrum Akademischer Verlag, pp. 89–130 [English transl. in *History of Analysis*, American Mathematical Society Press, 2003, pp. 73–103; Czech transl., *Historie Analýzy*, Math Publishing, Pardubice, Czech Republic, 2007]

- 1994 “Three Traditions in the Calculus: Newton, Leibniz and Lagrange”, in *Companion Encyclopaedia of the History and Philosophy of the Mathematical Sciences*, I. Grattan-Guinness (ed.), Routledge, pp. 308-317 [reprinted by Johns Hopkins University Press (Baltimore, 2003, pp. 308-17) and in Helen Lauer ed., *History and Philosophy of Science for African Undergraduates*, Hope Publications (Ibadan Nigeria, 2003)].

NON-REFEREED CONTRIBUTIONS IN JOURNALS AND COLLECTIVE VOLUMES

- 2018 “Il calcolo fra caratteristica universale e interpretazioni geometriche”, in *Leibniz e la cultura encyclopedica*, a cura di Massimo Mori, Bologna: Il Mulino, pp. 125-47
- 2018 “Newton the Mathematician,” *Newsletter of the London Mathematical Society*, 477 (July), pp. 16-21
- 2012 “L'eredità newtoniana: una programma di ricerca aperto - Newton's legacy: an open field of research”, in *Laura Bassi: emblema e primato nella scienza del Settecento*, a cura di Luisa Cifarelli e Raffaella Simili, Società Italiana di Fisica, Bologna: Casa Editrice Compositori, pp. 49-58, 167-176 (republished in *Laura Bassi –The World's First Woman Professor in Natural Philosophy, An Iconic Physicist in Enlightenment Italy*, Springer, 2020).
- 2010 “Certeza matematica e filosofia sperimentale nel dibattito fra Robert Hooke e Isaac Newton”, in *Conferenze e Seminari 2009-2010*, Associazione Subalpina Mathesis, Torino, Kim Williams Books, pp. 103-114
- 2009 “Método versus Cálculo en las críticas de Newton a Descartes y Leibniz”, *Estudios de Filosofía* 39, pp. 9-38
- 2007 “La época del punto: el legado matemático de Newton en el siglo XVIII”, *Estudios de Filosofía* 35, pp. 67-109
- 2002 “Dedurre dai fenomeni: alcune considerazioni sulla derivazione della legge dell'inverso del quadrato nei *Principia* di Newton”, *Nuova Civiltà delle Macchine* 20(2), pp. 119-28
- 2000 “Matematica e Alchimia in Newton”, *Nuova Civiltà delle Macchine* 18(3), pp. 26-41
- 1999 “Letter to the Editor”, *Historia Mathematica* 26, pp. 292-4
- 1997 “Metodi geometrici e metodi analitici a confronto: il caso della legge delle aree nei *Principia* di Newton”, *Nuova Secondaria* 15, pp. 39-40

ARTICLES IN ENCYCLOPEDIAS, DICTIONARIES AND GENERAL HISTORIES

- 2017 “Salvemini, Giovanni Francesco”, *Dizionario Biografico degli Italiani*, Volume 89 (online)
- 2008 “Mechanik I. mathematische”, *Enzyklopädie der Neuzeit*, Metzler Verlag, Bd.8, pp.
- 2008 “Kopernikanische Wende”, *Enzyklopädie der Neuzeit*, Metzler Verlag, Bd.7, pp. 26-30
- 2007 “Himmelsmechanik”, *Enzyklopädie der Neuzeit*, Metzler Verlag, Bd.5, pp. 453-456
- 2006 “Elastizität”, *Enzyklopädie der Neuzeit*, Metzler Verlag, Bd.3, pp. 173-76
- 2005 “Astronomie”, *Enzyklopädie der Neuzeit*, Metzler Verlag, Bd.1, pp. 729-44
- 2005 “Calcolo”, in *Enciclopedia dei Ragazzi* (direzione Giuseppe Bedeschi), Roma, Istituto della Enciclopedia Italiana
- 2004 “Enrico Fermi: dalle Statistiche Quantistiche al Decadimento Beta”, in *Storia della Scienza*, Roma, Istituto dell’Enciclopedia Italiana, vol. 8, pp. 501-9
- 2004 “Charles Hutton”, “Thomas Leybourn”, “Thomas Simpson”, “Edward Waring”, “James Gregory”, “Edmund Stone”, [revisions of entries “William Emerson”, “Charles Hayes”, “Matthew Stewart”] in *Oxford Dictionary of National Biography*, H. C. G. Matthew and Brian Harrison eds., Oxford University Press
- 2002 “Isaac Newton”, in *Storia della Scienza*, Roma, Istituto dell’Enciclopedia Italiana, vol. 5, pp. 328-36
- 2002 “Gli sviluppi del Calcolo in Gran Bretagna”, in *Storia della Scienza*, Roma, Istituto dell’Enciclopedia Italiana, vol. 6, pp. 380-8
- 2002 “Meccanica dei Corpi Solidi e Fluidi”, in *Storia della Scienza*, Roma, Istituto dell’Enciclopedia Italiana, vol. 6, pp. 129-34
- 2002 “I *Principia* di Newton nel Settecento”, in *Storia della Scienza*, Roma, Istituto dell’Enciclopedia Italiana, vol. 6, pp. 446-53
- 1999 “Abraham De Moivre”, “John Colson”, “Willian Emerson”, “Thomas Simpson”, “William Davis”, “Brook Taylor”, “William Jones”, “Charles Hutton”, “Matthew Stewart”, in *Dictionary of Eighteenth Century British Philosophy*, John W. Yolton and John V. Price eds., Thoemmes Press

ARTICLES IN PROCEEDINGS (NON-REFEREED)

- 2002 “Il Dibattito sui Metodi Matematici per la Filosofia Naturale di Isaac Newton (1687-1736)”, in *Atti del Convegno Correnti Elettriche e Illuminismo Scientifico: Manifestazioni per il*

- Bicentenario della Pila di Volta*, Centro A. Volta, Como (Italia), Franco Angeli, pp. 46-55
- 2002 "Geometry, the Calculus and the Use of Limits in Newton's *Principia*", in *The Application of Mathematics to the Sciences of Nature: Critical Moments and Aspects*, eds. P. Cerrai, P. Freguglia, and C. Pellegrini, Kluwer Academic Publishers, pp. 223-32
- 1998 "I Principia di Newton: il Dibattito sui Metodi Matematici per la Filosofia Naturale dal 1687 al 1736", in E. Bellone and G. Boniolo (eds.) *Storia e Filosofia della Scienza: un Possibile Scenario Italiano*, Il Milano, pp. 113-22
- 1996 "Stars and Gravitation in Eighteenth Century Newtonian Astronomy: the Hypotheses of Benjamin Worster, Nicholas Saunderson, Gowin Knight, Roger Boscovich and William Herschel", in *Copernico e la Questione Copernicana in Italia*, Olschki, pp.263-80
- 1995 "The Fermi-Dirac Statistics: a simultaneous discovery", in *The Foundations of Quantum Mechanics*, Kluwer Academic Publishers, pp. 357-67 [with Gianluca Introzzi]
- 1993 "Newton and British Newtonians on the Foundations of the Calculus", in *Hegel and Newtonianism*, M. J. Petry (ed.), Kluwer Academic Publishers, pp. 167-77.
- 1987 "Flowing Ducks and Vanishing Quantities", in *Science and Imagination in XVIIIth Century British Culture*, Unicopli, pp.231-5
- 1983 "Cambridge Mathematics and Algebra of Logic: Pure Analytics, Cauchy's Methodology and Divergent Series", in *Atti del Convegno Internazionale di Storia della Logica*, CLUEB, pp.295-300

Last updated: June 17, 2023